# Jeopardy Assessment

for the Proposed Incidental Taking Authorization
of the Butler's Gartersnake

Milwaukee Metropolitan Sewerage District
Milwaukee County Grounds and Underwood Creek Floodwater Management Project
City of Wauwatosa, Milwaukee County, Wisconsin

## Background

The state-threatened Butler's garter snake is the smallest of the five Wisconsin garter snake species. Both sexes of this species reach maturity during their second full year and females deliver 4-19 live-born young in mid to late summer. This species requires a moderately open to open canopy habitat, preferably with both upland and wetland habitat. Butler's naturally hibernate in open-canopy wetlands (sedge meadows, fringes of cattail marshes, etc.) but are also known to occupy sites that provide other means for successful overwintering (i.e. old landfills where conditions provide access below the frostline and where adequate moisture exists).

The Butler's garter snake is a colonial species that is restricted to several southeastern counties in Wisconsin. There are currently 30 locations where this species has been documented from 1973 to present. Twenty-five of these records have been documented since 1990. Most sites that have been moderately to heavily surveyed for Butler's show a healthy age-class structure, indicating that regular recruitment is occurring on those sites. Surveys and monitoring since its listing in 1997 reveal that Butler's often occur in very large numbers on relatively small sites (i.e. 400+ snakes detected on a 20-acre site with less than 50% suitable [open canopy] habitat). Three intensive survey/monitoring efforts associated with mitigation for incidental take to date have involved large numbers of Butler's garter snakes (over 1200 Butler's on three isolated sites along Lincoln Creek within the City of Milwaukee). Surveys have also demonstrated that Butler's can occur, sometimes in high numbers, on highly disturbed and degraded sites. One example is the location of 62 Butler's during one survey of a brownfield site in the industrial heart of Milwaukee. Most of the snakes were found under pieces of broken concrete in a large, abandoned, gravel parking lot that was adjacent to a small wetland.

In Summary, the Butler's garter snake is a fast-maturing species with potentially high annual recruitment. It can sustain populations on highly disturbed sites if the disturbance factors are eliminated and suitable wetlands are present on or adjacent to these sites. Since 1997, most sites where Butler's were suspected to occur, based on proximity to known range and habitat and which were subsequently surveyed, verified their presence.

## Jeopardy Assessment

The proposed Milwaukee Metropolitan Sewerage District (MMSD)-Milwaukee County Grounds and Underwood Creek Floodwater Management Project involves major portions of two significant conservation sites (Tier 3) for the Butler's gartersnake. The Tier 3 status is based on the Conservation Strategy that has been developed for this snake (see www.dnr.wi.gov/org/land/er/review/Butler). Both of these Tier 3 sites are fragmented by prior development (roads, railroad tracks and a cement river channel) and have been significantly reduced in habitat quality by various land-use practices. Incidental taking of the Butler's gartersnake will occur because existing habitat will be significantly altered due to the construction of a large floodwater storage basin on Milwaukee County Grounds and the restoration of the stream channel along Underwood Creek. Measures will be taken to minimize incidental take of the snake through a snake removal program in portions of these two Tier 3 habitats where habitat will be altered. The removed snakes will be maintained until the project is complete and the areas have been restored to

native vegetation. The Department has approved a conservation plan for the Butler's gartersnake that contains a vegetation restoration plan, a snake monitoring and viability assurance plan, and a long-term habitat management plan. These plans are available from MMSD.

In summary the Conservation Plan and Incidental take Authorization will require that the following conditions be implemented:

1. Snake fencing will be installed around all affected wetlands within the two Tier 3 sites prior to snake emergence in spring in order to facilitate and maximize snake removals prior to the initiation of construction.
2. Snake fencing will be required around all construction footprints to prevent snakes from moving into the construction footprint from adjacent habitats.
3. All snake fencing must be maintained during the snake's active season (March 16-Nov. 5). These fences shall also be inspected at least twice weekly on non-consecutive days and repairs must be made within 24 hours.
4. Once habitat on the two patches is restored, snakes will be allowed to return to the sites. A monitoring plan will monitor snakes survival, persistence, and population numbers. If snake numbers do not show solid evidence of reaching or maintaining viability during the monitoring portion of the plan, additional snakes may be brought in from the surrounding watershed as needed and appropriate.
5. Vegetation monitoring is required to achieve a minimum standard for native vegetation establishment on the two Tier 3 sites.
6. Vegetation management of the restored portions of the two Tier 3 sites to maintain suitable snake habitat is required in perpetuity. Management/maintenance of all suitable snake habitat must be done in accordance with the Department's grassland protocols for Butler's gartersnake conservation.
7. All suitable snake habitat that will exist on both Tier 3 sites upon completion of this project shall be protect in perpetuity through a Conservation Easement with the WDNR.

The department has determined that the proposed project is not likely to jeopardize the continued existence or recovery of the state population of these snakes or the whole plant-animal community of which they are a part. In addition, we believe that the conservation measures being implemented on these two Tier 3 sites will likely increase Butler's gartersnake populations by increasing the acreage of suitable snake habitat and by improving habitat quality.